Peter Kremer, WSP/Parsons Brinckerhoff
COMPLETE STREETS IMPLEMENTATION OVERVIEW

• Level-of-Traffic-Stress Analysis
  – Somers Point

• Regional Trail Network
  – Atlantic County

• Technical Assistance
  – Outreach, Training and Workshops
TOOLBOX OF CYCLING ACCOMMODATIONS

• Prior Methods:
  – Bicycle-Level-of-Service
  – NJDOT Bicycle Compatibility
  – Bicycle Suitability
  – DVRPC RideScore

• Focus on Engineering
  – Design vs. user experience
  – Bicycle Compatibility prioritizes wide shoulders
<table>
<thead>
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<th>Posted Speed Limit</th>
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Typical NJ State Highway

- AADT: 50,000
- Speed: 50 mph
- Lane Width: 12 ft.
- Number of Lanes: 4
- Shoulder Width: 10 ft.
# Bicycle Compatibility Analysis

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COMPATIBLE FOR WHO(M)?
BICYCLE LEVEL OF TRAFFIC STRESS

• Reflective of how bicyclists perceive the roadway
• Experiential metric - based on user comfort
• Accounts for variance in skills, ability to tolerate traffic stress
• Prioritizes
  – lower speeds
  – narrower roadways
  – dedicated facilities
  – network connectivity
BASIS FOR COMFORT LEVEL

Estimated Comfort Level of Bicycle Riders
By Speed and Facility Type
(2,500 AADT)

http://tcstreetsforpeople.org/
**Bicycle Level of Traffic Stress**

- **Stress Level 1:** All Users (children, seniors)
- **Stress Level 2:** Most Adults
- **Stress Level 3:** Enthusiastic Riders
- **Stress Level 4:** Experienced Riders
ALL USERS, ALL MODES, ALL ABILITIES?

*data courtesy of City of Portland, 2005
ALL USERS, ALL MODES, ALL ABILITIES?

*data courtesy of City of Portland, 2005*
• Somers Point, NJ
  – 5 square miles
  – 10,700 residents
  – 2 off-road multi-use paths
  – Adjacent to Ocean City
CASE STUDY: SOMERS POINT, NJ

- “Island Effect” demonstrated by removing higher stress roads
**EXAMPLE: SOMERS POINT – MAYS LANDING ROAD**

**Existing:**
- 2 lanes
- 45 mph
- LTS 4

**Add Bike Lanes**
- 45 mph
- LTS 4

**Add Separated Bike Lanes**
- LTS 1
CASE STUDY: SOMERS POINT, NJ

Existing Conditions

Los 1 & 2 Only

Final Network

Los 1 & 2 Only

Eirisi Network

Only

Los 1 & 2 Only
COMPLETE STREETS TECHNICAL ASSISTANCE

• NJDOT Complete Streets Policy (2009)

• Guidance Materials

• Templates and Checklists
  – Model Complete Streets Policy Template (2012)
  – Complete Streets Checklist (RBA - 2010)

• Brochures and Infographics
  – Complete Streets Infographic (2014)
  – Sharrow Flyer (2015)
  – Walk-Safe Infographic (2016)
WRITING AND ADOPTING A POLICY

A GUIDE TO POLICY DEVELOPMENT

Making Complete Streets a Reality:

The Borough of Netcong’s Complete Streets policy provides an example of a comprehensive list of improvement activities.

“Complete Streets ... should be incorporated into all planning, design, approval, and implementation processes for any construction, reconstruction, or retrofit of streets, bridges, or other portions of the transportation network, including pavement resurfacing, restriping, and signalization operations, if the safety and convenience of users can be improved within the scope of the work...”

Borough of Netcong Complete Streets Resolution Language

A Complete Streets policy may also stipulate accommodations for pedestrians and bicyclists during construction. For example, the Borough of Red Bank’s and the NJDOT’s Complete Streets policies both include such a provision and cite NJDOT Policy #705 (Accommodating Pedestrian and Bicycle Traffic during Construction), which describes how bicycle and pedestrian traffic will be addressed during construction.

4. Design Standards

The fourth ingredient provided in a strong Complete Streets policy is a reference to design standards that will be followed when implementing the policy. This may simply state that the latest local and national standards and criteria will be used, or it may refer more specifically to individual design standards. Under New Jersey state law, ensuring that improvements conform with accepted standards is one of the necessary
IMPLEMENTING THE POLICY

A GUIDE TO CREATING A COMPLETE STREETS IMPLEMENTATION PLAN
NEW JERSEY DEPARTMENT OF TRANSPORTATION

INTRODUCTION

Complete Streets are streets designed for everyone—all users, travel modes, and ability levels—balancing the needs of drivers, pedestrians, bicyclists, transit vehicles, emergency responders, and goods movement. However, adjusting a Complete Streets policy does not mean that every street in every community should have sidewalks, bike lanes, and transit. There is no universal prescriptive design. Indeed design is driven by local context and demand. By applying Complete Streets as a core, guiding principle, a robust, multi-modal network with facilities for all users can be established incrementally over time.

This Guide to Creating a Complete Streets Implementation Plan is a follow-up to the Guide to Complete Streets Policy Development. The purpose of this document is to show municipalities how to translate policy into action, how to take a municipal Complete Streets Policy and use it as a roadmap for implementing strategies, procedures, plans, and projects in ways that create networks of safe, multimodal streets that reflect local travel needs, priorities, and community context.

The Guide to Policy Development described the process of writing and adopting a Complete Streets policy: how to understand and respond to local context, issues, and needs; address concerns about liability; and build local support for policy adoption. A model policy template is also provided to guide the development of a relevant and effective policy. Whereas the Guide to Policy Development makes the case for Complete Streets and leads to the point where policies begin to come into everyday use, NDDOT’s Guide to Creating a Complete Streets Implementation Plan empowers municipal decision makers and professionals to get it done through a comprehensive program of planning, training, and design initiatives.

And the momentum is building—by November of 2012 more than 40 New Jersey jurisdictions had adopted a Complete Streets policy, more than any other state. But getting our municipal leaders and professionals to write and adopt Complete Streets policies is just the first step on the journey to building safe streets, improving mobility and access, and creating healthy, sustainable communities. Incorporating multimodal accommodations into the routine planning, design, maintenance, and operations of our street systems and communities requires more than just understanding and agreeing with a two or three page policy that has been adopted by the governing body. For successful implementation, Complete Streets must become ingrained in even the most routine actions and undertakings of our villages, towns, and cities.

Researchers tell us that the strategies, projects, and improvements that promote and accommodate multimodal travel occur most often at the local level where the demand is, but that the support that makes it all possible—the policies and traffic regulations, design standards and guidelines, training and dissemination of expertise, and funding—typically comes from the state and national level.12

This striped bicycle lane fits the local context, improves safety and mobility, and Completes the Street in Wildwood, NJ.
Complete Streets are streets designed for ALL USERS, ALL MODES and ALL ABILITY LEVELS. They balance the needs of drivers, pedestrians, bicyclists, transit vehicles, emergency responders, and goods movement based on the context of the roadway.

**DESIGN TOOLKIT**
- Each street has unique needs, dependent on its community context.
- Complete Streets are designed to maximize safety and accessibility for all current and potential users.
- Design elements provide the tools to complete any street in any context.
- These may include, but are not limited to, those displayed below.

**PLAN ADOPTION**
- Find a local champion
- Identify local officials and the public
- Involve stakeholders

**PLAN IMPLEMENTATION**
- Update local planning, zoning and design procedures
- Train staff, professionals, and decision makers
- Form partnerships with business and civic groups
- Initiate pilot projects

**LIABILITY**
- Does the pursuit of safety by implementing Complete Streets plans, design, and construction expose an agency to liability? Yes.
- In New Jersey, these types of improvements are receiving some liability protection. The plan design, or improvement has been approved for an entire area, including roadway, bike lanes, sidewalks, etc. Since the liability is spread out and the project is immediately compatible with standards previously approved by an authorized entity or person.
OUTREACH EVENTS AND WORKSHOPS

- Complete Streets Summit – 2013 and 2015
- Bicycle and Pedestrian Advisory Council (BPAC)
  - Meets quarterly
- Policy, Planning, and Design – 16 Workshops
- Complete Streets Implementation – 4 Workshops